THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. XCI.] THURSDAY, SEPTEMBER 3, 1874. [No. 10.

Original Communications.

SOME ADDITIONAL REFLECTIONS UPON THE LATE EPIDEMIC OF CEREBRO-SPINAL MENINGITIS.

By J. BAXTER UPHAM, M.D., of Boston.

Read before the Massachusetts Medical Society, June 2, 1874.

GENTLEMEN,—It fell to my lot in the last year to investigate, with some care, the disease which forms the subject of this paper, during its prevalence in an epidemic form in various parts of the State. The purpose of my examination then was to inquire more especially into the circumstances attendant upon the advent of the disease, with a view to ascertain, if possible, its origin or supposed cause. In the course of this inquiry, I obtained, from personal researches and a somewhat extensive correspondence with the Fellows of this Society, a mass of facts which I have thought might perhaps be of some further use to the profession. Under this idea, I have selected the most complete of the cases comprised in the tabular returns received, with a view to a more careful analysis of some of their important features. It will be my aim not to repeat what I have so recently advanced upon this subject, although I must, necessarily, traverse, to some extent, the same ground.

And, in reviewing the labors of my honored predecessors in this field of research, I am struck with the superior facility for obtaining accurate statistical information which we of the present generation enjoy. The able and indefatigable committee, who were charged with the inquiry into the causes and history and modes of treatment of the first epidemic of this disease, of which we have record, in Massachusetts—that of 1810—framed with great care and conscientiousness a series of questions, under seventeen heads, which were sent in behalf of the Massachusetts Medical Society to all its Fellows and other gentlemen of character, in whose vicinity the disease had prevailed. They were published, also, in the principal newspapers of the day, in order (as the report says) that any persons possessing useful information on this subject might be induced to communicate it.

In reply to this circular, the committee affirm that they received communications from twelve persons, all Fellows of the Society; and, likewise, indirect communications from several gentlemen of respectability in the State of Connecticut. And upon this somewhat meagre return, together with the few cases which the members of the committee themselves were able to inspect, was founded that most interesting and instructive Report on "Spotted or Petechial Fever," which appears in the second volume of the Medical Communications and Discussions of this Society, under date of June 21, 1810.

In contrast with the above, the circular issued under the auspices of the Massachusetts State Board of Health, in the month of May, one year ago, brought replies from about two hundred physicians, representing seventy-seven towns and cities, and containing the data, more or less complete, of upwards of five hundred cases of the disease. And I am happy to improve the opportunity, which I may not again have, to tender my sincere thanks to those members of this Society—many of whom are now before me—who have responded so fully and so promptly to the demands thus made upon their time and patience. The consciousness of duty well performed, and the satisfaction of aiding in the elucidation of an obscure and terrible disease, must be your abundant reward.

But to my subject:—It is well known that the disease we are now considering has prevailed to a limited extent, within the last few years, in our own and several of the adjoining States. Dr. Parks, in the able and exhaustive report made to this Society in 1866, has given us a detailed account of all the cases he could collect in the eight or ten years preceding that date. Since 1870, it would appear that the number of cases rapidly increased, till they culminated in the somewhat extensive epidemic of 1873.

I am convinced that I have been able to get together only a minority of the cases that occurred in that year, and of these the data, as a whole, are by no means as complete as could be wished. But the returns are widely distributed over the State, and may be said to fairly represent the ordinary phenomena of the disease. The *name* which has, of late years, been given to this affection—that of cerebro-spinal meningitis—conveys the idea of its essential nature, as manifested in its prominent symptoms and revealed by *post-mortem* inspection; and it points, likewise, to the principal indications to be aimed at in its treatment. It was not possible, within the scope of my communication to the State Board of Health, to more than glance at the general characteristics of the malady in question—to give, in briefest form, an idea of its history, its habits and progress, and gain some hints for prophylactic management in times of its epidemic prevalence.

It will be my object at this time more especially to present a condensed view of the symptoms and pathological manifestations of the disease, based upon the series of cases I have selected, and to consider a few of the many modes of treatment adopted. The number of these selected cases is 315, of which 173 recovered and 139 died,* the ratio of mortality being $44\frac{55}{100}$ per cent. This percentage is almost precisely the same as that of the 517 cases comprised in my recent report to the State Board of Health, and it is interesting as containing, so far as it goes, the statement, already published, that the recent epidemic was a mild one in comparison with many others on record.

In the tabular statements to which I have alluded, the symptoms are grouped under two heads, according to the time of their appearance, whether in the earlier or later stages of the disease. In this way, I believe we are more likely to obtain, from a multitude of observers, such minuteness and particularity of record as will conduce to a more reliable analysis of this important chapter in the history of any epidemic disease. And in regard to these symptoms, as I have elsewhere said, they exhibit great diversity of manifestation; it cannot be expected in any given case that a majority, even of those which legiti-

* Three cases were incomplete.

mately belong to the disease, will be present. This has, no doubt, tended greatly to obscure its diagnosis, on the part of those especially who are not familiar with the affection, who have learned its habits from books mainly. Hence it is important to find out, if we can, the most constant and prominent of the signs and symptoms which pertain to the affection.

The relative frequency of these symptoms, as applicable to the list I have in hand, may be seen by the following tables:—

Table showing the Relative Frequency of some of the more Marked Symptoms in the Early Stages of 315 cases of Cerebro-spinal Meningitis indicated in the foregoing series.

Noted in how many Cases.	Early Symptoms.
61	Chills.
223	Headache.
44	Nausea.
147	Vomiting.
102	Pain in nape of neck.
86	Delirium.
64	Irregularity of the pulse.
57	Pain along the spine.
50	Stiffness of muscles (of neck especially).
49	Retraction of head.
40	Spasms or convulsions.
39	Stupor or drowsiness.
37	Anomalous pains.
30	Opisthotonos.
29	Restlessness.
27	Tenderness over spine.
24	Hyperæsthesia.
19	Prostration.
18	Muscular twitchings.

Table showing the Relative Frequency of the more Prominent among the Advanced Symptoms in 315 cases recorded in the preceding series.

Noted in how many Cases.	Advanced Symptoms.
74	Headache.
84	Delirium.
75	Retraction of head.
62	Opisthotonos.
56	Spasms or convulsions.
54	Coma.
54	Prostration.
46	Irregularity of the pulse.
39	Stupor.
36	Pain in nape of neck.
34	Rigidity of muscles (of neck especially).
34	Dilated pupils.
34	Anomalous pains.
32	Paralysis.
31	Hyperæsthesia.
31	Pain in spine.
55	Petechial spots.
26	Restlessness.
20	Strabismus.
15	Herpes.
15	Deafness.

It must be remembered that I am only attempting to show, by this analysis, the comparative frequency of such symptoms as are sufficiently marked to attract the attention of observers in the series of cases I have adduced. Unfortunately, we are, for the most part, without the negative evidence which, if obtained, would have added greatly to the interest and value of the tables. We can only take them as we find them.

It appears from these tables that chills, headache, nausea, vomiting, pains at the nape of the neck, delirium, irregularity of the pulse, stiffness of the muscles (of the face or neck more particularly), retraction of the head, spasms or convulsions, stupor or drowsiness, and anomalous pains were among the most constant of the early symptoms, being noted respectively in 61, 223, 44, 147, 102, 86, 64, 57, 50, 49, 40, 39 and 37 cases; and, in the later stages, the symptoms and phenomena more frequently observed were headache, delirium, retraction of the head, opisthotonos, spasms or convulsions, coma, irregularity of the pulse, stupor, pain in nape of neck, rigidity of muscles, dilated pupils, anomalous pains, paralysis, hyperæsthesia, &c., these symptoms being noted in 74, 84, 75, 62, 56, 54, 54, 46, 39, 36, 34, 34, 34, 32 and 31 cases, respectively.

It may be interesting to append here a tabular statement, showing, in condensed form, the relative frequency of these more prominent symptoms as noted *at some period of the disease* in all the recorded cases, as follows :—

Table showing the Relative Frequency of the Prominent Symptoms noted at some Period of the Disease in the cases recorded in the preceding series.

Noted in how many Cases.	Prominent Symptoms.
61	Chills.
238	Headache.
147	Vomiting.
132	Delirium.
102	Pain in nape of neck.
102	Retraction of head.
92	Irregular pulse.
90	Pain in spine.
79	Opisthotonos.
70	Rigidity of muscles.
68	Spasms or convulsions.
66	Stupor or drowsiness.
61	Anomalous pains.
58	Coma.
57	Prostration.
55	Petechial spots.
51	Restlessness.
46	Nausea.
44	Dilated pupils.
41	Tenderness of spine.
35	Paralysis.
34	Hyperæsthesia.
27	Muscular twitchings.
22	Herpes.
22	Irregular breathing.
21	Deafness.
20	Strabismus.
13	Contracted pupils.
12	Intolerance of light.

As I have before said, it is not to be supposed that even in a majority of the cases from which these tables are deduced all the important symptoms of the disease have been set forth. I do not claim, therefore, for these numerical statements anything more than a comparative exhibition of the facts and phenomena that more particularly arrested the attention of the physician in his earlier and later visits. Nor can we attach any very great value to such chronological statistics in a disease of so uncertain duration. Its onset is for the most part sudden and unheralded, and, as will appear from an inspection of the returns, the physician's services are generally demanded at once. His first visit dates, usually, within a few hours from the time of the attack. I have classed the early symptoms, therefore, among those which appear in the first three or four days of its course. With this explanation, the summary I have given will, I hope, afford some aid in the prompt diagnosis of this oftentimes obscure affection.

Before leaving this part of my subject, I will dwell somewhat upon a few of the symptoms above enumerated. It will be seen that the disease is not uniformly ushered in by chills or rigors, as is commonly the case with purely febrile affections; and my own experience has been that when such symptom *is* present it is rather a *sense of chilliness* than a well-defined chill. Headache is an early and an almost constant accompaniment, and it is generally of the severest kind. It is variously denominated in the preceding returns as "intense," "very severe," "excruciating," "tearing," "horrible," &c. &c. The delirium may be severe, but it is oftener than otherwise of a kind which, for want of a better term, I will call superficial—by which I mean that the patient can usually be roused so as to answer questions logically, even in the worst cases. There are, of course, exceptions to this rule. Vomiting is an early and pretty constant symptom, with children especially. Pain in or about the nape of the neck, it will be seen, is noted as among the most frequent of the early symptoms. This is oftentimes accompanied with a peculiar sense of stiffness and of tenderness to the touch, and with that other characteristic, oftentimes pathognomonic, sign, retraction of the head. Conjoined with these last, may usually be found the rigidity of muscles referred to in the tables. Irregularity of the pulse is a marked symptom. It indicates, of course, the erratic action of the heart, which has many times sadly confused the diagnosis. So closely, indeed, does this latter symptom simulate valvular disease of the heart as to deceive the most wary. A labored, panting respiration is very naturally joined with the symptoms just mentioned. And I cannot help thinking that it must have existed in more instances than the preceding tables would indicate. Under the head of anomalous pains may be classed the painful sensations alluded to by various writers on this disease, which come on, for the most part, suddenly and unexpectedly, and affect the arms, legs, feet, hands, the stomach or bowels, the joints, &c. &c., without seeming connection or cause. We might speak, also, of anomalous *motions* as pertaining to this disease. One patient is spoken of as indulging in "small, convulsive movements, such as no Christian ever made." Another is represented as striking and spitting at his father. Others are described as "clutching," "kicking," "gyrating," &c." The petechial spots, which are reported as having been present in a limited number of cases, are generally of a hæmic character, and resemble

those seen in the worst cases of typhus. Restlessness and jactitation, with hyperæsthesia, do not assume that prominence in the foregoing tables which my own experience has given to them; and it is quite likely that, in the greater prominence of more important symptoms, these may have passed unnoticed. There is oftentimes great nervous agitation, and a dread of being moved or even touched. The bowels are usually torpid; indeed, constipation is very generally alluded to as the ruling condition in the preceding tables. The temperature is not given as often as could be wished, and when indicated, the period of the day or the stage of the disease has not been particularized. In several cases, however, a very high temperature has been noted, as high as $108\frac{3}{10}^{0}$ by Dr. Wm. Read, and in one instance (that of a boy eight years of age), by Dr. Ira Russell, as high as 110^{0}.

We come now to the anatomical characteristics of the disease, which, as might be inferred from the symptoms above detailed, belong mostly to the brain and spinal cord. In fifteen cases only were *post-mortem* examinations obtained. But, so far as they go, they tend to confirm the generally received pathology of this affection. In twelve cases, there was either purulent effusion or a deposit of lymph on some part of the surface of the brain, most often at its base—in one instance, "like fibrine" in substance. In seven cases, there was an increased quantity of fluid in the ventricle, or beneath the arachnoid. In seven cases, there was congestion of the membranes to a greater or less extent. There was a deposit of lymph upon the spinal cord in six cases. In three cases, there was apparent suppuration of the cord. Opalescence of the arachnoid was manifest in three cases; and in one case the membranes at the base of the brain and spinal cord were thickened and adherent. It is much to be regretted that so few autopsies could be obtained. But such as we have will afford a fair opportunity to judge of the average character of the anatomical lesions. And they tally, in the main, with my own observations in other and more limited epidemics of the same kind. According to my former experience, however, it sometimes happens that the most undoubted manifestations during life leave no perceptible trace after death; more especially is this to be anticipated in cases sudden and violent in their accession, and of brief duration.

In reviewing the tabular statements of the list of cases to which I have called attention, I have studied with much care the record of treatment. And I am struck with the manifold and various plans of therapeutic management which have been adopted, and the evident earnestness and faith with which, sometimes, very opposite methods are advocated. Indeed, almost every known mode of treatment, in its every kind and degree, seems to have found its representative here. Thus: one physician, of high standing and influence, gives morphia, Dover's powder, tartrate of antimony and aconite, with calomel and opium, but "*no stimulants*," and brings his patient through in about two weeks with a good recovery; another equally eminent practitioner, in the same town and in the same space of time, reports a perfect recovery upon beef-tea and milk, quinine, carbonate of ammonia and brandy. In the practice of a Boston physician, two cases having the same symptoms, were treated with ergot and the bromides early; later, with opium, quinine and wine, conjoined with milk diet and occasionally a warm bath. The result was, in the one case recovery,

in the other death, in about the same period of time. Seven out of nine patients died in the hands of another physician, who assiduously and conscientiously administered opiates and the iodides, together with tonics and stimulants, and counter-irritation to the parts particularly affected. An eminent country practitioner, who had several cases under his charge, reports that he faithfully administered belladonna, ergot, quinine, brandy, wine and iron throughout the course of the disease and found them in every instance to disagree. Another, in speaking of a three months' case which was still pending, tells us that after the bromide of potassium and the application of cold to the head and neck, and irritants to the spine, added to abundant nourishment with milk and eggs, beef-tea, &c. &c., for the last month his patient had "taken no drug," for no treatment, he adds, seemed to be of any avail; and, on the next page, he continues, in grim despondency, "*result, probably fatal.*"

Another adopted a thoroughly rational, expectant treatment; the bowels were kept open by mild laxatives, pain and restlessness were relieved by bromides and opium; irritation was applied to the nuchæ and upper portion of the spine, and, in later stages, quinine, iron, stimulants, with nourishing diet, were given, *secundum artem.* The result in a majority of his cases was *death.* Another sums up his treatment in the one word, "stimulants," and his next record reads as follows: "*No autopsy was permitted.*" Still another puts under the head of treatment the designation "homœopathic;" the inevitable result was "*death.*"

Seriously, gentlemen, I am puzzled, in the abundant experience which the late epidemic has given us, to discover what course of treatment promises the best. At the Massachusetts General Hospital, the iodide and bromide of potassium, ergot, quinine, with milk and beef-tea, formed the staple management. The same general plan, with the addition of ice to the head and croton oil to the nuchæ, with belladonna and ergotine, constituted the treatment at the Boston City Hospital. A well-known physician of this city puts great reliance upon the exhibition of ergotine and the extract of belladonna, in the proportion of a grain of the former to one tenth of a grain of the latter, for adults, administered every four hours during the acute stage. This combination, in connection with tonics and stimulants, a good diet and the application of cold to the head and occasional irritants to the nape of the neck, was followed by recovery in a large majority of his cases. One gentleman reports a highly favorable result in a series of ten cases treated by the application of hot water to the head, blisters to the nuchæ, a sinapism to the spine and hot fomentations to the feet, followed, at a later stage, by the administration of bromide of potash, the fluid extract of ergot, aconite, stimulants and nourishing diet. Another, who had a considerable experience in the disease, resorted to the old-fashioned application of the "hemlock sweat," as it was administered by our fathers a half century ago, and, as he thinks, with positive advantage. Several observers have thought they saw a marked improvement consequent upon the application of irritants, as above described, to the nuchæ and spine.

It would appear, from the foregoing summary, that no positive plan of therapeutic management has been developed by the recent epidemic. This coincides with my own previously expressed views as derived

from a personal experience of the disease in military camps and hospitals, and confirmed by study and observation elsewhere. Yet, after all, I believe that something can be accomplished in the way of treatment. Bearing in mind the essential element of the disease, a morbid poison acting primarily upon the vital fluid and affecting secondarily and rapidly the meninges of the brain and spinal cord more especially, giving rise to symptoms and phenomena which simulate, while they are not identical with, inflammatory action in these parts, the consequent exhaustion of the vital powers and great perversion of the nerve force, as manifested in the irregular action of the heart, the labored breathing, the restlessness and jactitation and extreme sensitiveness of the surface; remembering, also, the material lesions which are so generally revealed on *post-mortem* inspection, the indications for a rational treatment would seem to be these:—

1. To husband the strength.
2. To combat the tendency to congestion of the brain and spinal cord.
3. To mitigate the intense pain.
4. To calm the nervous excitement.
5. To nourish and support the system till the exuded morbid products can be removed by the kindly offices of nature, and to minister, in the meanwhile, by all the ways at hand, to the comfort and relief of the patient. The choice of means for the fulfilment of these manifest indications I leave to the judgment and good sense of those who hear me.

I am aware, gentlemen, that much more might be said upon the subject of this epidemic, and that the analysis of the tabular returns might be pursued to advantage in other directions than those I have attempted; but I have already reached the limit set forth in my paper at the outset, and I will trespass no further upon your patience.

CASES WORTH KNOWING OF.

By Charles E. Buckingham, M.D., of Boston.

I.—I was called in haste, shortly after 10, P.M., to see a young man 19 years old. He went to bed about 9 o'clock. A gentleman occupying the next room said that he "was roused by hearing him choking and groaning. Went to him, and found him in a sort of crazy condition. Shortly after, vomited what appeared to him to be blood. Could not get him to speak, and he was apparently unconscious." He was walking him about the room. The patient had been out of business for some time. During the preceding afternoon had been to a military review, and ate supper as usual. The sister said that he had threatened to take laudanum. On examining the matters vomited, I found the bloody matter to be strawberries, eaten for supper, and mixed with baked beans eaten at breakfast. There was no smell of laudanum, nor of anything else, except acid from a foul stomach. His pulse was 80. Skin cool. Pupils largely dilated and not responding to light. Resisted all attempts to see into mouth, and, of course, to give him anything by that means. I succeeded in pouring into his stomach, through one nostril, a mixture of a drachm of powdered ipecac in a cupful of warm water. Shortly after, he vomited, and was induced to drink more of the ipecac

mixture. Ten minutes later, he vomited more beans, and became perfectly conscious, talked and laughed. The pupils at once acted normally.

Twenty-five years ago, I was called to the boy's father, in very much the same condition, the effect of eating the peel of an orange. The remembrance of that case, and the striking resemblance of this to it, was a great aid in diagnosis. The boy's talk about taking laudanum was merely thoughtless talk. It was one of those peculiar secondary nervous affections, which, if he had been a teething child, would have probably been a case of convulsions; if a man of seventy, apoplexy and death.

II.—On Saturday, a boy of ten years took about five grains of iodide of potassium, at 10.45, A.M. About noon, began to have coryza and to sneeze. At 2.45, P.M., he repeated the same dose. Had dyspnœa and aching of his lower molars. About 4, P.M., undressed and went to bed, with headache and nausea. I saw him soon after 5, P.M. Coryza excessive; both eyes very much swollen and the left one nearly closed. Face flushed. Tongue clean and very moist. Both parotids very much swollen. Moderate headache. Pulse 100. Dyspnœa excessive. Gave him one twenty-fourth of a grain of sulphate of morphia at 5.45, at 6 and 6.20, P.M., at which time his pains were diminishing. The morphia was repeated forty minutes later. He slept very much, and awoke in the morning relieved of all the discomfort, except that in his eyes, which had nearly disappeared twenty-four hours later.

On placing the hand over the cardiac area, in many people with thin chest walls, we can distinctly perceive the alternate movements of auricular and ventricular systole, with each corresponding diastole; and, of course, we can also readily appreciate any pathological change in their movements. Great increase in their force indicates hypertrophy; but a diminution of that force is by no means to be regarded as a certain indication of atrophy, dilatation without hypertrophy, or even of cardiac debility from any cause—though it may be a sign of one or other of these phenomena, as well as of great pericardiac effusion, pulmonary emphysema, or even simple thickening of the thoracic walls. In many of these cases, especially in pericardiac effusion, but more or less in all, the cardiac shock may be rendered perceptible to the hand by causing the patient to sit up and lean well forwards. In this case, the readiness with which it can be appreciated, and the position in which it is felt, must be carefully noted. Forcible pulsation above the fourth rib, and within the cardiac area, may possibly be aneurismal, but most commonly depends upon dilatation and hypertrophy of the appendix of the left auricle. Forcible pulsation, chiefly to the left of the cardiac area below the fourth rib, with depression of the apex-beat, indicates dilatation and hypertrophy of the left ventricle; while pulsation beneath the lower part of the sternum, with disappearance of the apex-beat, reveals dilatation with or without hypertrophy of the right ventricle, the extent of dilatation being, to some extent, measurable by the amount of epigastric pulsation, the degree of hypertrophy being denoted by the force of the pulsation. When the whole heart is hypertrophied and dilated, a more or less violent shock may be felt over the whole of the cardiac area; and where the hypertrophy is great, the shock may be double—the first forcible and systolic, the second less forcible and diastolic—the result of the rebound of the enlarged heart from the posterior thoracic walls.—"On the Diagnosis of Disease of the Heart," by Geo. W. Balfour, M.D.—*Edinburgh Medical Journal*, June, 1874; *Medical Times and Gazette.*

Progress in Medicine.

REPORT ON ANATOMY.

By Thomas Dwight, Jr., M.D.

Anomalies.

The following are selected from the great number of irregularities reported.

T. Zaaijer (*Archives Neérlandaises des Sciences Exactes et Naturelles*, Tome 7, Livraison 5) describes an extremely rare anomaly of the first and second ribs, in which, on the right side, the first rib ended, without a cartilage, more than one inch from the sternum, and rested on a process projecting upward from the second rib, the adjacent surface being covered with cartilage. Another process, directed upward, arose from the sternum, and was connected by a fibrous band with the end of the first rib. The same observer records an instance of a *radio-carpo-metacarpal* muscle arising from the lower part of the radius and ending tendinously on the trapezium and in the annular ligament, as well as by an aponeurotic expansion in the bases of the second, third and fourth metacarpal bones.

Professor Curnow (*Journal of Anatomy and Physiology*, May, 1874) describes two cases of the not very uncommon *cleido-occipital* muscle, going from the clavicle to the occiput, which were remarkable by the presence of fibres coming from the sternum and crossing the *sterno-cleido-mastoid*. He describes, also, a very curious *supra-costalis*, arising from the upper border of the third rib and passing up under the pectorals, and behind the clavicle and the subclavian vessels to the anterior tubercle of the transverse process of the fourth cervical vertebra, where it joined the *scalenus anticus*. It gave off in its course a few fibres to the *scalenus medius*. Curnow has seen a *crico-hyoid* muscle, of which there is but one previous case on record. It occurred on the left side of a male larynx, extending from the upper border of the cricoid cartilage to the lower border of the hyoid, just internal to the larger horn. It was quite distinct from both the *crico-thyroid* and the *thyro-hyoid*.

Construction of the Dark or Double-bordered Nerve Fibre.—By Dr. H. D. Schmidt, of New Orleans. (*Monthly Microscopical Journal*, May, 1874.)

Dr. Schmidt concludes his paper as follows: "In finally summing up the results of my researches regarding the structure of the double-bordered nerve fibre, this will be found to consist of the following parts: 1, of the true nerve fibre, the so-called axis cylinder, consisting of a bundle of *granular fibrils*, enclosed within a distinct sheath of their own; 2, of a semi-liquid substance, the *medullary layer*, surrounding the axis cylinder; 3, of the *fibrillous layer*, consisting of very fine, delicate and smooth fibrils, and surrounding the medullary layer; and, 4, of the *tubular membrane or external sheath*, a thin, structureless and elastic membrane, enclosing all the other parts. Whether, now, the thirdly-named part really exists in the living nerve fibre, or whether it is only produced by coagulation, it must be decided by other, more accurate histological researches than those hitherto made."

Dr. Schmidt shows great patience and ingenuity, but we regret that we must criticize his methods, and decline to accept his results. It is not by separating the bundles of a large nerve like the sciatic of the frog, even without removing it, that nerve fibres will be found in their normal state. The author is disposed to doubt that in the living tissues the nerves appear as single, outlined, homogeneous fibres, a fact which, however, must be looked upon as established.

Osteology.

The Sacrum.—An inaugural thesis on this bone was presented at Paris, by Bacarisse, in November, 1873, which, though needing confirmation on several points, is of considerable value. After a general description of the bone, the author discusses the frequency of its consisting of six instead of five vertebræ, and finds that it occurs in one-third of all cases. This is not due to the fusion with the sacrum of either a lumbar or a coccygeal vertebra, but to the presence of a transitional one between the lumbar and sacral regions. This vertebra is found to articulate more or less extensively with the ilium, and to be more or less coössified with the vertebra below. The promontory of the sacrum, namely, the part which constitutes the projecting, posterior border of the superior strait of the pelvis is formed in the sacrum of six vertebræ, usually by the upper border of the first vertebra, but occasionally by that of the second. As already stated, about one-third of the sacra examined consisted of six vertebræ, but the sacra of this kind comprised nearly one-half of the male ones, and not quite one-quarter of the female ones. Should the lower part of a sacrum be wanting, the number of component vertebræ may, nevertheless, be ascertained by drawing over the front of the bone a line connecting the lower ends of the auricular surfaces. If this line pass above the middle of the third space, the sacrum consists of five vertebræ; if below, of six.

The author then considers the effect of race and sex on the shape of the bone, but we will notice only his results with Europeans. He measures the breadth of the base of the bone above, on front and behind, as well as the distance between the lower ends of the auricular surfaces and the length. Taking first the sacrum of five vertebræ, he finds that all these measurements are absolutely greater in the male than in the female, except that of the breadth of the front of the base. When the length equals the breadth, we may consider the bone male. In woman, the breadth of the anterior border of the base is more nearly equal to its greatest breadth than in man; when the latter exceeds the former by as much as one centimetre, the bone is male. In woman, the anterior breadth of the base is much greater than the posterior. The breadth between the lower ends of the auricular surfaces is greater in the female than that of the posterior border of the base, but the excess should equal one centimetre to make the sign of value. On the other hand, if the latter dimension equals or exceeds the former, the bone is surely male. Bacarisse states that the curve of the anterior surface of the sacrum is more pronounced in the female than in the male, but he does not give this subject the attention it deserves. Though the proportions of the sacrum of six vertebræ are not quite the same as those of five, most of the above rules hold good.

Bibliographical Notices.

A Treatise on Food and Dietetics. By F. W. Pavy, M.D., F.R.S. Philadelphia: Henry C. Lea. 1874.

In the volume before us, the author has brought together and presented in a very readable form a larger amount of information in regard to food than has appeared in any similar work. The first part of the book is devoted to remarks on the dynamic relations and the origination of food. Although the statements and explanations in this portion of the book are, as a rule, in accordance with the teachings of the most advanced science, yet it seems that on certain points the author's ideas are not characterized by that clearness and precision which are so important in treating questions of this sort. We find, for instance, "force" defined as "the power of producing energy," and from the context it is evident that the author regards "force" and "potential energy" as synonyms, though the terms, as used by modern physicists, have very different significations. Again, in considering the force-producing value of various alimentary principles, the author seems to regard oxidation as the only source of force. Thus, he describes the nitrogenous constituents of the food as being "broken up—1st, into a nitrogenous portion—urea—which is eliminated as useless, and, 2d, a hydrocarbonaceous residue which represents capacity for force-production." The force which must be set free by the conversion of complicated albuminoid substances into the comparatively simple urea is here entirely disregarded.

The position which the author early took in opposition to Bernard's theory of the glycogenic function of the liver, has apparently led him to ignore a great deal of the work by which, in recent years, our knowledge of this function has been so much increased. He still asserts "that there is no appreciably recognizable destruction of sugar anywhere effected within the circulatory system," and, unwilling to admit that glycogen can be normally changed into sugar, speculates upon the possibility of its being changed into fat. With this exception, the description of the digestion, assimilation and physiological uses of the alimentary principles is excellent, and deserves higher praise than is bestowed by saying that it is the best in the English language. The discussion of the relation of nitrogenous food to muscular exercise is admirable, and includes an excellent criticism of Flint's observations on Weston, the pedestrian. The brief account of the alcohol question is also extremely clear and well written, and the conclusions arrived at are all that are justified by the present condition of our knowledge. This portion of the work would, however, have been rendered more valuable by an account of recent German investigations in this department of physiology, particularly those conducted under Voit's directions in the laboratory at Munich.

The catalogue of alimentary substances or articles of food is very complete and valuable, the description of the various sorts of alcoholic beverages deserving especial praise. Some remarks on the different methods of preserving food find their place appropriately in this connection.

The latter part of the work is devoted to dietetics, theoretical and practical, including remarks on the diet of infants, diet for training and therapeutical dietetics. The dietaries of the principal hospitals of Great Britain form a valuable addition to this portion of the volume. H. P. B.

Physiology for Practical Use. Edited by James Hinton. New York: D. Appleton & Co. 1874.

Mr. Lewes's old title of the Physiology of Common Life would do for this book perhaps better than that which it bears. For practical precepts constitute but a small part of it, and even then reflect the present state of medical science more by appearing as simple, empirical rules than deductions from what must still be called the ever shifting theories of physiological

science. The chapter on the ear is perhaps the most perfect, being very straightforward, and full of detailed practical advice. It is, of course, by the editor, and we suppose we may also recognize his hand in the sermonizing passages which are frequent throughout the book. These will, no doubt, displease many readers. But they do not displease us, for they in no way resemble the official moralizing of the old-fashioned teleological expositor of Nature with his routine *fabula docet*, but are the utterances of a man of genius, whose religious imagination is simply not to be repressed, although he probably knows that he is expected rather not to use it here.

There is a good chapter on alcohol, and others on sleep and sleeplessness, taking cold, headache, gymnastics, &c. Much physiological information is given in simple language, and the book may, on the whole, be cordially commended to those readers whose minds are not strong enough for the more nutritious food that more systematic but not necessarily larger works will give them. The trouble with all ultra-simple popularizing books is that they give results only without their concrete experimental basis, so that the reader gets a most dreamlike and vague notion of the real *things* described as occurring. A much better, though larger and more thorough book, combining physiology, pathology and hygiene, and written popularly in the best sense, namely, very clearly, is Le Bon's "Vie Humaine," recently published in Paris.

In the chapter on ventilation, this plan is recommended as one of the best and simplest for ordinary rooms:—A piece of wood, three inches high and exactly as long as the breadth of the window, is to be prepared. Let the sash be now raised, the slip of wood placed on the sill, and the sash drawn closely upon it. If the slip has been well fitted, there will be no draft in consequence of this displacement of the sash at its lower part; but the top of the lower sash will overlap the bottom of the upper one, and between the two bars perpendicular currents of air, not felt as draught, will enter and leave the room.

A Conspectus of the Medical Sciences for the Use of Students. By HENRY HARTSHORNE, A.M., M.D. Second Edition. Philadelphia: Henry C. Lea. 1874.

THE object of this manual is to afford a convenient work of reference to students during the brief moments at their command while in attendance upon medical lectures. The work is planned to meet the wants of the old system of medical education, particularly in schools where the "quiz-class" system is largely in vogue. The value of such a book is largely due to the manner in which it keeps the various departments up to the standard of modern medicine. New editions should be frequent, and each time the revision should be carefully made. It is a favorable sign that it has been found necessary in a short space of time to issue a new and carefully revised edition. The illustrations are very numerous, and unusually clear, and each part seems to have received its due share of attention. We can conceive such a work to be useful, not only to many students, but to practitioners, as well; but we should hesitate to recommend it to beginners, and we should be sorry to have it take the place of any of the regular text-books in the libraries of those for whom it is suited. It reflects credit, however, upon the industry and energy of its able editor.

BOOKS AND PAMPHLETS RECEIVED.

Experimental Researches on the Physiological and Therapeutical Action of the Phosphate of Lime. By L. DUSART. Second Edition. Paris. (From E. Fougera & Co.)

Reminiscences. By David Parsons Holton, M.D. Pp. 29.

The Pathology of Inebriety. A Lecture before the Medical and Chirurgical Faculty of Maryland. By Joseph Parrish, M.D. Baltimore. 1874. Pp. 17.

Boston Medical and Surgical Journal.

Boston: Thursday, September 3, 1874.

Among the annual announcements distributed by medical schools at this time of the year, there are none which we have perused with more interest than that of the Medical Department of the University of Pennsylvania. It will be remembered by readers of the Journal that the medical faculty of this institution had succeeded last year in raising nearly half a million of dollars for the purpose of building a hospital and medical school on the new grounds of the University. These buildings are now nearly completed, and before the opening of the winter term will be ready for use. A design of the buildings accompanies the announcement, and plans of the interior of the school are also given. The style of the buildings is highly ornamental, and the arrangements of the school contain many conveniences and advantages not usually thought necessary for what is generally the most forlorn of all buildings intended for purposes of instruction.

We cannot help feeling some regret that the new plan of one-story buildings has not been adopted in the construction of the hospital, as has been done in the case of the Presbyterian Hospital, an interesting account of which is given by our Philadelphia correspondent in the Journal for August 27th ult.

We are glad to notice a step in the right direction in the plan of instruction, as indicated in a modest foot-note, which states that "students who have attended two full courses of lectures on anatomy, chemistry, materia medica, and the institutes of medicine, may be examined upon these subjects at the end of their second course." In their final examination for their degrees, the other required subjects are included. We shall hope, at some future day, to see this foot-note assume a more prominent place in the pages of the announcement, and the plan, therein made optional, to be included among the requirements for a degree. The faculty is to be congratulated on its enterprise, and having now shaken the dust of many old associations and old ideas from its professional garments, we trust it will not rest satisfied with half-way measures, but will before long fully inaugurate a more complete reform in its system of medical education.

The other medical school of Philadelphia, not to be left behindhand, is also energetically raising a sum of money, which, with State aid already promised, will enable the faculty to erect a new building, now sadly needed, and place it on a footing that will enable it to compare favorably with its rival.

THE National Sportsmen's Association, a notice of which may be found on another page, may well result in a real benefit. Sportsmen, as a body, have small influence, and do not commonly act with much union or much energy; but they here have a chance to call to their aid the class who make their living by hunting and fishing. This class, if all kinds of fishermen be included, is large, and has power. They supply the markets with great quantities of animal food, of which the chief constituents are ducks, grouse, quails, deer, salmon, trout, smelts, shad and the true sea fishes. With the exception of some species of those last named, all require protection, and such protection can only become effectual through a well ordered system of laws controlling the entire country.

The investigations of the Fishery Commissions of the several States and of the United States have proved that the interests of the fishermen, as well as those of the consumer, require certain protective laws; and every exertion should be made to impress this truth on the men who supply our markets. The men who *keep* the markets may easily be controlled by stringent regulations.

THE forty-second Annual Meeting of the British Medical Association was opened on Tuesday, August 11, at Norwich, the retiring President, Sir William Fergusson, in the chair. The President elect, Edward Copeman, M.D., delivered the annual address, after which Mr. Fowke, General Secretary, read his report, which shows the society not only to be relieved from the debt by which it had been embarrassed in former years, but also to have a sufficient sum of money to enable it to make grants for scientific investigations, which hitherto it had not been able to do. The number of members is still on the increase, while the names of the most distinguished members of the profession figure conspicuously either as officers or as participants in the literary work of the Association. The last number of the Association's *Journal* contains the various addresses, the standard of which appears to be nearly if not quite equal to that of last year. The prospects for a successful meeting next year are unusually good, the Association having accepted an invitation from members of the profession in Edinburgh to hold the next meeting in that city. Sir Robert Christison has been made President elect.

BELLEVUE HOSPITAL.—At a recent meeting of the Commissioners of Charities and Correction, the following resolutions were adopted:—

"*Resolved*, That the Medical Board of Bellevue Hospital shall, on the 1st of September be organized in the manner following, and thereafter the present Board, as at present constituted, shall cease to exist:—

"*First:* On the first of September the following named physicians and surgeons shall constitute the Medical Board of Bellevue Hospital: Dr. Aus-

tin Flint, Bellevue College; Dr. Alonzo Clark, Twenty-third Street College; Dr. Alfred L. Loomis, University College; Dr. Wm. B. Eager, no school; Dr. James R. Wood, Bellevue College; Dr. Henry B. Sands, University College (College of Physicians and Surgeons); Dr. Stephen Smith, New York University; Dr. Ernst Krackowizer, no school.

"*Second:* The members of the Medical Board will, as soon as may be after September, nominate to the Commissioners of Charities and Correction such physicians and surgeons as members of the Medical Board of Bellevue Hospital as will enable the Commissioners to appoint from the persons so nominated ten members in addition to those above named, so that the Medical Board shall consist of eighteen members.

"*Third:* When the Medical Board shall have been constituted of eighteen members, they shall be divided by the Commissioners into three classes. The term of the first class shall be for three years; of the second class, for five years; and of the third class, for seven years. The members of each class shall be eligible for reappointment, and all appointments to fill vacancies shall be for seven years.

"*Fourth:* When a vacancy shall occur in the Medical Board, it shall be the duty of the Board to give public notice through one or more of the medical journals published in the city of New York of such vacancy, and to invite the application of such members of the profession resident in New York as may desire to be candidates for appointment.

"*Fifth:* All applications for appointment shall be considered by the Medical Board, and the names of the candidates who, in the opinion of the Board, are highest in the order of merit for professional ability, attainment and personal character, shall be transmitted to the Commissioners, who will appoint one of the candidates named to the vacancy.

"*Sixth:* The Medical Board will assign the service to its several members, but such service shall be continuous throughout the year.

"*Seventh:* The rules and regulations of the Hospital not inconsistent with the foregoing will be continued in force.

"*Eighth:* That a pavilion hospital be immediately erected after January 1, 1875, on Blackwell's Island, for a Maternity Hospital, to be administered by a separate Medical Board, organized in a like manner to the Bellevue Medical Board."

On the 28th of July, the resolutions were adopted, with an amendment authorizing the eight members to nominate, by September next, a number of physicians and surgeons from whom the Commissioners are to choose eleven additional members of the Board, making nineteen members in all.

The clause relative to the Maternity Hospital was also adopted.—*New York Medical Record.*

KOSTER ON UNRECOGNIZED INSANITY.—Dr. Koster has for some time been engaged in describing a number of persons in whom the insanity was not recognized, albeit they were known to be lazy, incorrigible, always getting into trouble, &c. Some selections from Dr. Koster's "gallery" have already been given in the *London Medical Record*, and we now give the chief points of the summary that he makes (*Irrenfreund*, No. 12). Hereditary taint, although the history was very difficult to obtain in many instances, was nevertheless marked, amounting in round numbers to 60 per cent. The development of the malady is threefold. It comes on either gradually from early youth, as a constantly increasing manifestation of mental defects, such as roguery or vagabondism; or else appears at puberty, or perhaps later still in life, after some such cause as injury to the head, blighted affections, excesses, fevers, &c. The course of the insanity is either by a slow increase of the symptoms, or by excitement, fury and destructive tendency. Hallucinations of the higher senses are rare, and still more so are fixed delusions. In one girl and in three men, a state of dementia rapidly supervened, with motor paralysis; whilst in two there were optimist feelings, and in the other two a state of melancholy. The form of the disease is not pure, but rather mixed. Based

on a state of melancholy or moroseness, there are frequently large and supercilious notions superadded. The melancholy takes an active form in the way of suspicion against the family surroundings and the world in general, disposition to show anger, and constant bemoanings and complaints. Sometimes the patients take to listless wandering about, at other times they fall rapidly into dementia. The individual symptoms vary according to the peculiar temperament of the person; some may be altogether absent, but there is in most, if not in all, instances an abnormal state of irritability, to which may be added lesions of common sensibility of the most various kinds, insane feelings amounting to fury of the highest degree. This irritability much resembles that seen amongst epileptics, who form the *enfants terribles* of asylums. It is especially among women that complaints are made, and then they assume the hysterical form, pointing especially to the præcordial region, the head, the uterus, or a general feeling of weight and pain in the limbs. At times, however, the men complain also, and one is inclined to attribute to them either simulation or exaggeration. Most of the persons of this class are inclined to intrigue, lie and quarrel, and to shirk work. This shirking of work shows itself in different ways. Some will occupy themselves for a time in a light occupation; others only under constant supervision and stimulation, and even then they adduce the most trifling excuses to be spared the labor; whilst many are absolutely incapable of work in any form. One very striking phenomenon is an irremediable chattering, a sort of brain-diarrhœa, and they may be listened to for hours at a time without any definite conception of what they are talking about. Others, on the contrary, refuse to answer the questions put to them, or will only converse with certain individuals. Absolute and concrete delusions are seldom met with, though there may be an exaggerated self-feeling, and they talk of being "occupied with their own affairs," without time to attend to the work placed before them. Periodical exacerbations are witnessed, chiefly shown in emotional excitement, and at times they amount to positive fury. It is now that attempts to escape oftenest occur, whereas, as a rule, in spite of their complaints and discomfort, they are well contented with the asylum. The bodily condition is mostly good, and many have an attractive appearance and intelligent expression. Notable bodily defects are wanting, though on close examination it is apparent that one may have a peculiar skull-formation, in another the face is non-symmetrical, and a third may show a decided scrofulous habit. Impulse to drink amongst the men, and sexual propensity in the women, have been said by some to be constantly met with, but this is not accordant with Dr. Koster's experience. An exact and scientific inquiry into the houses of ill-fame in large cities might discover that many of the denizens are persons of a low degree of intellectual power. It remains a fact that all these people have been hitherto wrongly estimated, and on the ground of public morality have been placed in inappropriate institutions; whence, on the supervention of an attack of melancholy or fury, they have been removed to an asylum as incurable or only capable, under constant supervision, of improvement. Good food, tepid baths, and injections of morphia, with rest in bed, are the principal therapeutic measures. We may recognize here a group of cases which, from their development, cause and symptoms, vagabond life, hereditary influence, irritability and perversity, with periodic exacerbations and remissions, may be classed as "deluded rogues and parasites of society."—*The London Medical Record.*

TREATMENT OF FRACTURE OF THE SKULL.—Dr. Corley, of the Jervis Street Hospital, Dublin, records a series of cases of fracture of the skull, and, in his final observations, enumerates the injuries of the cranial bones for the relief of which trephining has been practised, which are as follows:—

1. Simple Fissure. For this fracture, the operation should never be performed. True, that, accompanying the injury, there may be localized extravasation of blood; or, subsequently and consequent upon it, there may be

formation of matter, which may require the application of the trephine, but the operation then has no reference to the fracture.

2. Simple Comminuted Fracture. A fracture may be simple externally, but the inner table may be more extensively fractured, and fragments may wound the dura mater or brain. This condition cannot be guessed at until symptoms of intracranial mischief arise; for them, and not for the fracture, we may trephine.

3. Depressed Fracture. Dr. Corley does not make any distinction between simple depressed and compound fracture as to operative treatment. The latter is more liable to be followed by intracranial mischief. As long as no symptoms are present, or, if present, until we have tried all other means of removing them, we should not operate. If obliged to interfere, we do so with little hope, as the symptoms are most likely to own an origin other than the depressed bone.

4. Depressed Fracture, Comminuted, including that which is known as "punctured" fracture, such as may be produced by the stab of a pointed weapon, kick of a horse, or blow of a sharp stone. In many cases of this description, it may be necessary to operate at once, whether symptoms be present or not. If the surgeon has reason to believe that in a punctured fracture spiculæ of bone are impinging on the surface of the brain and lacerating it, he is bound to interfere at once. The cause, nature and position of the injury, and the peculiarities of the symptoms, if any be present, will all be of value in assisting him to arrive at a correct determination. However, in this case, the only one in which interference should be sanctioned without symptoms, much must be left to the experience and judgment of the surgeon.—*Dublin Medical Journal, April*, 1874; *Practitioner*.

M. Pasteur.—The French Government lately laid before the National Assembly a bill for granting to M. Pasteur, who retires from his professorship at the Sorbonne in consequence of failure of vision, a national recompense for his important and valuable contributions to science. It is proposed to grant him an annual pension of 12,000 *francs* (£489), being nearly the amount of his emoluments at the Sorbonne; the payments to commence as soon as the bill should be passed by the Assembly. After his death, his widow is to have annually one half of the above named sum. The Commission charged with the examination of the bill, in presenting their report on it, recommended the Assembly to approve it on the following grounds:—

"In voting the pension, you will accomplish an useful work—an useful work, because the *éclat* of the recompense granted will arouse the attention of the most careless, and will contribute to the triumph of scientific method over obstinate routine; an useful work, for the learned, recognizing the anxiety of the representatives of the nation and assured for the future, will pursue their labors with an ardor untrammelled by painful cares; a work of special utility, at a moment when international communication and multiplied commerce, bringing good and evil alike, threaten to strike our agriculture with scourges against which science alone can defend it; an useful work, finally and above all, because it will be an act of justice."

When the bill came on for consideration in its turn among the orders of the day, the Assembly at once voted urgency, and passed it during the same sitting. Twenty-four members only voted against it.—*British Medical Journal.*

The Peculiar People again.—Thomas Hinds, a member of this sect, was lately charged at the Woolwich Police Court with the manslaughter of his child, Joseph Hinds, aged two years, through neglecting to provide it with proper remedies and attendance during its illness. The coroner's jury had returned a verdict of manslaughter against him. The child was ill for three weeks, and frequently in convulsions; but the parents, following the

practice of the Peculiar People, sent for one of the elders, named Hurry, who anointed it with oil and prayed over it. A *post-mortem* examination showed that death resulted from pleurisy and pericarditis. The prisoner, who said that all he had done was for the glory of God, was committed for trial.—*Dublin Medical Press and Circular.*

Correspondence.

Letter from Paris.

PARIS, Aug. 8, 1874.

THE Musée Orfila, always interesting, is doubly so as seen in comparison with the English collections. I do not mean, as yet, to say it is better, but that it is different. Nationality crops out as much in the dissection of a leg as in the cut of a coat. The Museum is too well known to justify a general description, so I will confine myself to certain parts. One striking feature is the number of preparations of the fasciæ, for the study of which the French school is preëminent. Even the Germans, who are probably the most thorough anatomists, treat this branch rather superficially. The preparations of the fasciæ of the abdomen, thigh and perinæum make clear, at once, many points which diagrams and pictures leave unexplained. The corrosion preparations are of various merit, the best surpassing any I saw in England. I looked forward, however, with the greatest interest to the muscular preparations, anxious to learn if Brissaud and Lascowski's flexible ones were as fine as when they filled me with wonder five years ago. They are still there, and newer ones with them, but, alas, their glory is departed. None were red, and all looked shrunken and hardened. They were not spoiled, but greatly deteriorated. There is no doubt that such preparations are of value; it is well to have them on hand, but it is, I fear, very doubtful if they can be made to withstand indefinitely the action of time, and it is certain that they cannot do so if they are used. Near these were several others, and, I think, older muscular preparations, by Suquet. His method may be found in his work on "Embaument," and consists in injecting the part to its greatest capacity with a solution of gelatine, which, by hardening inside the capillaries, makes the muscles larger and firmer than is normal. The part is then dissected, painted with appropriate (?) colors and varnished. These preparations appear to keep quite unchanged, but, with a few exceptions, they are horribly ugly and unnatural. Many, before now, have labored to make good imitations of the human body, but it has been reserved for Suquet to make the human body look like a bad imitation.

As a whole, the Museum is very fine, and, though in many parts open to the criticism of owing too much to artificial embellishment, it probably surpasses any in London, with the exception of that of the Royal College of Surgeons, with which it cannot properly be compared. T. D., JR.

Letter from Vienna.

[From our Regular Correspondent.]

VIENNA, AUSTRIA, July 22, 1874.

MESSRS. EDITORS,—The International Sanitary Congress, now in session in this city, has been laboring for several weeks past, its especial object being the regulation of quarantine in case of Asiatic cholera. The questions thus far discussed were the following, viz.:—1st. If cholera made its appearance in a certain locality, whether intercourse should be allowed with non-infected localities by communication on land, on the rivers and on the high sea? 2d. The best measures which should be adopted to prevent the extension of cholera and the value of disinfectants to destroy cholera poison. The Congress, composed of the most eminent sanitarians of the day, is divided into two

camps, one party insisting that the strictest rules should be adopted to prevent persons from infected places to hold intercourse with persons from non-infected places; the other party—who carried their point by a considerable majority—claiming that it is impossible to interrupt railroad and steamboat travelling by law; that, even in time of war, blockade runners take the risk of being captured and perhaps of being shot as spies, and still no law can prevent them from having intercourse with both of the belligerents. It would, therefore, be useless to pass any law for the purpose mentioned. The Congress came to the conclusion that land and river quarantine would be useless. As regards communication by sea, the Congress deprecates the detention of ships coming from infected ports, but they recommend the establishment of hospitals at all seaports for the immediate reception of patients who are suffering from cholera upon their arrival at a station. All persons on board such an infected vessel to take baths before going on shore, and to change their wearing apparel. As to the third question, it was answered in the negative, that, up to the present moment, there were no disinfectants known that would destroy the cholera poison; still it was advisable to use them, as they might be beneficial. The first Secretary of the American Legation here, Mr. Delaplaine, through whom I applied for a ticket of admission, has received the assurance from the President of the Cholera Congress, Herr von Gagern, that the minutes of the proceedings will be placed at my disposal, and the question being of such vital importance to the United States—who, I regret to say, are not represented in the Congress—I will send you the most interesting portions of the same. Through the courtesy of one of the members of the Congress, I am enabled to send you the names and titles of the members.

Germany is represented by Prof. Pettenkofer and Prof. Hirsch.

Austria and Hungary.—Baron Gagern, President of the Congress; Albert Glandstatten, President Austrian Marine; Francis Ulrich, Cabinet Councillor in the Department of the Interior; Chs. Haardt de Hartenthuren, Councillor Interior Department; Dr. Drasche, Head Physician, Rudolf's Hospital; Prof. Chs. Sigmund, Chevalier de Honor; Dr. Leopold Grosz, Councillor Hungarian Marine Service; Dr. Josef Schlosser, Royal Physician, Hungary; Dr. Hector Catinelli, Councillor Marine Service.

Belgium.—Dr. Henrard, Inspector Sanitary Service, Department of the Interior; Dr. Lefebvre, Prof. of Pathology, University of Louvain. Dr. P. A. Schleiner, Chief Physician, Copenhague.

Egypt.—S. E. Colucci, President Sanitary Service; M. De Régny Bey, Secretary Sanitary Service.

France.—Baron Maximilien de Ling, First Secretary of French Legation, Vienna; Dr. A. Fauvel, Inspector General, Sanitary Service; Dr. A. Proust, Professor in Paris.

England.—Dr. Dickson, Physician of the English Embassy at Constantinople; Dr. Ed. C. Seaton, First Officer Assistant of the Sanitary Council in London.

Greece.—Dr. Orphanides, Professor at Athens.

Italy.—Mariano Semenola, Professor of Materia Medica, Naples.

Luxemburg.—Dr. Schmidt, President of the Society of Natural History.

Norway.—Le Dr. T. Kierulf, Chief Physician, Interior Department. Dr. Klaus Larsen, Sanitary Officer of the Norwegian Army.

Netherlands.—H. L. Reeder, Marine Surgeon, 1st Class; Dr. H. Van Kapelle, Chief of Division, Department of the Interior.

Persia.—Dr. J. E. Pollak, Hekim Paschi, Body Physician to the Schach of Persia, Interpreter of the International Sanitary Congress.

Portugal.—Dr. José Thomas de Souza Martius, Professor of Medicine at Liede.

Roumania.—Dr. Marcovitz, Professor at Bukarest.

Serbia.—Dr. Etienne Miloshavlevitch, Chief Sanitary Officer, Interior Department.

Sweden.—Dr. N. J. Berlin, Director General and President of the Medical College.

Switzerland.—Dr. Chs. Zehender, District Physician, Zurich; Dr. Adolf Ziegler, Secretary Medical College at Berne.

Turkey.—Dr. Bartotelli, Inspector General, Sanitary Service; Ali Bey, Member of the Sanitary Council at Constantinople.

As mentioned above, the Austrian Government, through her ambassador at Washington, has invited our Government to send a representative to the Congress, but up to this day no one has appeared in that capacity.

The meetings are held in the building of the Interior Department, with closed doors, and no one is admitted except the regularly accredited members representing the countries mentioned. The proceedings, however, are published daily in the papers of this city. The language used is the French, only the German delegates, Pettenkofer and Hirsch, speaking German, which is translated into French by Dr. Pollak. The members have been received with the greatest cordiality by the Emperor of Austria, who entertained them at Schönbrunn, near Vienna, at his summer residence, where they dined and wined to their hearts' content. After the final adjournment of the Congress, I will be able to give you a full and detailed account of their deliberations, and I give you these meagre data only in anticipation of the results attained at the end of the session. Very respectfully yours, RUDOLF TAUSZKY.

TRANSFUSION.

MESSRS. EDITORS,—In the recent periodical medical literature on Transfusion, the experiments of Hasse, with direct transfusion of lamb's blood, occupy prominent and very favorable mention. Hasse's published cases followed those of Gesellius by about a year, and seemed to set the success of the method beyond doubt.

In the last number of the *Archiv für Klinische Medicin* is a paper on the same subject, known, no doubt, to many of your readers, but the results in this series of trials are so opposed to that obtained by the above-mentioned experimenters that they deserve wider circulation.

The article is by Drs. Fiedler and Birch-Hirschfeld, of Dresden. Their own trials cover six cases of tuberculosis—four in the earlier, and two in the later stages.

The amount of blood injected varied between 50 and 150 grammes. During the transfusion, there was noticed redness of face, neck and body, increasing to cyanosis, great distress, dyspnœa, excessive pain in sacral region, so that in each case the operation was broken off by the urgency of the symptoms. The phenomena immediately following were long-continued chills, followed by a rise in the temperature from 1° to 4° C. Urticaria, ecchymoses and hæmaturia were observed in some of the cases.

The final result gave in no case any improvement in the thoracic symptoms, and only one seemed to derive any benefit whatever.

Eight other cases, outside the hospital, are adduced, and the statement is made "that the physicians who operated are not able to prove, in a single case, a beneficial result following the transfusion of lamb's blood in tuberculosis."

Sander's seven cases (*Berliner Klinische Wochenschrift*, 3d April, 1874) are said to have resulted in a "temporary improvement in appetite and nutrition" set off by the threatening symptoms occurring at the time of operation. Winckel's one case of pyæmia ends fatally, and the *post mortem* reveals coagula in the pleural cavity, the result of the transfusion.

In their criticism of these cases, the authors sum up the results of this method of treatment in tuberculosis as follows: "We consider it unjustifiable to employ further with the unfortunate victims of consumption a procedure which must be considered by no means free from danger, and to which, from our observations, we cannot attribute the slightest therapeutical value."

W. W. LOVEJOY.

Radical Treatment of Hæmorrhoids.

Messrs. Editors,—July 9th, A. B., a young gentleman residing in this city, called upon me for treatment, having several very painful external hæmorrhoidal tumors. Being unwilling to have either ligatures or excision resorted to in the treatment of his case, I made applications of solid nitrate of silver to each tumor, using charpie saturated with Monsel's styptic as a dressing. Each dressing was held in place as long as possible by strips of adhesive plaster. These applications and dressings were continued at intervals, every other day at first—later, every three days—until nine applications had been made. On July 25th, the tumors were obliterated, each having sloughed off.

During the treatment, I prescribed pulvis sennæ compositus (which kept the bowels in the required fluid condition), ordering the patient to abstain from all stimulating food. After the second application, the patient was able to attend to his business as usual, the pain having entirely subsided.

Respectfully yours, J. H. Johnson.

Providence, R. I., July 28, 1874.

Simple Method of repairing Registering Thermometers.

Messrs. Editors,—My registering thermometer, after being used two or three times, becomes worthless, as I was informed by one of our instrument makers, in consequence of the needle being shaken down and uniting with the mercury at the bottom of the glass. He said he had a number of his own spoiled in this way by gentlemen examining them in his store, and that he could not repair them. He "would sell me another," and gave the valuable advice to "be more careful with it."

I declined to invest again in an article so easily made worthless, and set about repairing the old one, and succeeded after a number of experiments. Applying gentle heat to the bottom, the mercury quickly rises to an expansion at the top of the glass. Permitting a very little to enter this expansion, a sharp, quick blow on the top breaks the column in a number of places. Shaking all down into the lower bulb, a little remains at the top to form the needle. This is forced out by considerable heat; then partially shake down, and the instrument is again serviceable. If too much mercury rises into the upper expansion, the needle is made too long, or perhaps the top of the glass is broken off.

H. J. Barnes, M.D.

Boston, July, 14, 1874.

California and Phthisis.

Boston, July 15, 1874.

Messrs. Editors,—The following extracts from the letter of a patient, who went to Santa Barbara, California, may be of interest to some of our profession, who have heard that all patients who go there with consumption get well.

C. E. B.

"The wind is blowing, and walking is consequently unpleasant, on account of the dust. There is much sickness in town at present. Some ascribe it to the bad water the town is supplied with. In my immediate circle of friends, every one seems to be sick. Mrs. —— says her husband is losing flesh rapidly, although, to me, he is looking well. Mr. * is going home next Sunday. He looks like a walking skeleton. Mr. * * would go home, but he has no home to go to. Mr. A. B. is miserable, and wants to leave Santa Barbara and go across the mountains. Miss C. D. is sick, lungs affected, and her father a doctor, who says he must move to a healthier locality. I think Santa Barbara rather a failure, as regards her wonderful curative powers. I suppose there are some, but I do not know one who has received lasting benefit from the climate. . . . I feel about the same as usual, but see no difference in my cough."

Medical Miscellany.

G. P. PUTNAM's Sons, Publishers, have issued a circular, calling attention to a new quarterly journal of skin and venereal disease, entitled the *Archives of Dermatology*, which is to be edited by Dr. L. Duncan Bulkley. Each issue will consist of 96 octavo pages with suitable illustrations, special attention being given to photographic work and microscopy. The transactions of the New York Dermatological Society will appear in that journal. The first number will appear in October.

CLAIMS for priority in the application of extension to flaps in cases after amputation, have recently appeared in the *Lancet*, and have brought out a letter from "Edward Warren Bey, Chief Surgeon, Staff Egyptian Army," formerly Dr. Edward Warren, of Baltimore, in which he claims this invention, first employed by him in August, 1861. This method has been long in use in this city, and is familiar to all who have visited our hospitals for twenty years past.

THE contest for the chair of physiology in the University of Edinburgh has given rise to a good deal of sharp correspondence in the English journals. Dr. Pettigrew has felt obliged to reply to some of the comments which have been aimed at his method of canvassing for the position. Dr. Pettigrew replies, very justly, that this system has been authorized by custom. The glaring absurdities of a system which compels every candidate to resort to means which most modest men would strenuously avoid, have been made prominent on this occasion, and will, we hope, exert some influence in breaking up a practice which must have the effect of lowering the estimation in which the most active and prominent men are held by the mass of the profession.

BRUNTON ON THE TREATMENT OF HEADACHE.—Dr. L. Brunton, in a paper "On the Action of Purgative Medicines," recently published in the *Practitioner*, writes:—"The administration of a brisk purgative, or a small dose of Epsom salts, thrice a day, is a most effectual remedy for frontal headache when combined with constipation; but if the bowels be regular, the morbid processes on which it depends seems to be checked, and the headache removed even more effectually by nitro-hydrochloric acid or by alkalies, given before meals. If the headache be immediately above the eyebrows, the acid is best; but if it be a little higher up, just where the hair begins, the alkalies appear to me to be more effectual. At the same time that the headache is removed, the feeling of sleepiness and weariness, which frequently leads the patients to complain that they rise up more tired than they lay down, generally disappears."—*The London Medical Record.*

THE following ancient and wholesome oath was taken by young physicians at Montpellier. It was at Montpellier that Rabelais was professor; as also Rondelet, the father of modern zoölogy:—

"I, Isidore, &c. &c., before the statue of Hippocrates, and in presence of the Professors of this School, and of my dear fellow students, do, in the name of the Most High, swear to be faithful to the laws of honor and probity in the practice of medicine.

"I will attend the poor gratuitously, and never will I exact more pay than my work is worth. When called to visit families, my eyes shall not see what there takes place; my tongue shall keep silent on the secrets confided to me, and my profession shall never serve for the corruption of society, or in the furthering of crime.

"Respectful and grateful towards my masters, I will hand down to their children the lessons I have received from the fathers.

"If I am faithful to my oath, may men honor me; may I be covered with disgrace and scorned by my associates, if I fail."—*L'Hermite en Province*, p. 343, vol. ii.

A CALL FOR A NATIONAL SPORTSMEN'S ASSOCIATION.—The "New York State Association for the Protection of Fish and Game," believing that the time had arrived when public sentiment was in favor of forming a grand national organization for the protection of fish and game, did, in Convention assembled at Oswego, N. Y., on June 23, 1874, adopt the following:—

"*Resolved*, That this Association, in Convention assembled, do indorse the call for a National Association, issued in *The American Sportsman* of Feb. 21, 1874," having for its object the procurement of "intelligent and efficient legislation for the protection of game birds and fish," and did name the 9th day of September, 1874, and Niagara Falls, N. Y., as the proper time and place for holding such Convention, and did appoint us as delegates to said Convention; now,

Therefore, We do issue this call to all State Sportsmen's Associations and Local Organizations where no State Associations exist, and gentlemen-sportsmen where no local clubs exist, to take the matter in hand and send *Delegations to said Convention*, and make the meeting one worthy of American gentlemen-sportsmen.

A. C. MATTOON, *Oswego, N. Y.*
S. T. MURRAY, *Niagara Falls, N. Y.*
N. ROWE, *West Troy, N. Y.*
GEORGE W. FLOWER, *Watertown, N. Y.*
W. J. BABCOCK, *Rochester, N. Y.*

NOTES AND QUERIES.

TYNGSBORO, August 17, 1874.

MESSRS. EDITORS,—Will you please inform your readers if all persons admitted to the Massachusetts Charitable Eye and Ear Infirmary *must* be admitted as *charity* patients. Is the institution for the poor only?

Complaint has been made because persons *able and willing* to pay all reasonable charges for board and treatment have applied for admission. Yours, &c., ***

QUERY ABOUT THE MANAGEMENT OF THE EARS.

MESSRS. EDITORS,—I see much in your JOURNAL about the diseases, treatment and management of the eye. Is the ear an organ too insufficient to be noticed? I want to know if, in the natural loss of hearing by age, there is any treatment to ward off the too rapid approach of decay, or help for old ears suffering thus? Or is there any hygienic treatment necessary to prolong this sense or prevent its too rapid decay? Or is a rigid "let alone" the best course in these matters? SENEX.

Peterboro', N. H., August 22, 1874.

MORTALITY IN MASSACHUSETTS.—*Deaths in fifteen Cities for the week ending August* 22, 1874.

Boston, 193; Worcester, 32; Lowell, 27; Chelsea, 6; Cambridge, 25; Salem, 11; Lawrence, 13; Springfield, 12; Lynn, 16; Fitchburg, 9; Newburyport, 7; Somerville, 14; Fall River, 44; Haverhill, 6; Holyoke, 11. Total, 425.

Prevalent Diseases.—Cholera infantum, 124; consumption, 40; typhoid fever, 19.

The mortality from cholera infantum shows a marked diminution as compared with last week. The deaths from typhoid fever are steadily increasing in number.

F. W. DRAPER, M.D.
Secretary pro tem. of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, August 29, 167. Males, 86; females, 81. Accident, 3; asthma, 2; aneurism, 1; inflammation of the bowels, 1; bronchitis, 4; congestion of the brain, 1; disease of the brain, 5; cyanosis, 1; cholera morbus, 1; cancer, 2; cholera infantum, 47; consumption, 27; convulsions, 3; croup, 1; cystitis, 2; debility, 4; diarrhœa, 5; dropsy, 1; dropsy of the brain, 3; dysentery, 3; epilepsy, 1; scarlet fever, 2; typhoid fever, 5; gastritis, 1; disease of the heart, 3; insanity, 1; intemperance, 1; inflammation of the lungs, 4; marasmus, 12; measles, 1; old age, 4; paralysis, 3; pleurisy, 1; premature birth, 1; peritonitis, 1; puerperal disease, 1; scrofula, 1; syphilis, 1; tumor, 1; whooping cough, 4.

Under 5 years of age, 93; between 5 and 20 years, 6; between 20 and 40 years, 30; between 40 and 60 years, 16; over 60 years, 22. Born in the United States, 134; Ireland, 24; other places, 9.